

REMARKS

By this Amendment, dependent claims 30-40 have been added merely to further recite the claimed subject matter without narrowing the scope of any of the claims. Claims 13-29 have been cancelled without prejudice or disclaimer. Applicants have amended the currently pending claims in order to expedite prosecution and do not, by this amendment, intend to abandon subject matter of the claims as originally filed or later presented. Moreover, Applicants reserve the right to pursue such subject matter in a continuing application. No new matter has been added. New claims 30-40 find support in the application, including pages 12-15 of the specification and Figures 2-7. Claims 1-12 and 30-40 are pending in this patent application. Reconsideration of the rejections in view of the remarks below is requested.

The Office Action rejected claims 1-12 under 35 U.S.C. §103(a) as being obvious in view of U.S. Patent No. 5,777,838 to Tamagawa et al. ("Tamagawa et al.") and U.S. Patent No. 6,754,062 to Logan et al. ("Logan et al."). Applicants respectfully traverse the rejection, without prejudice.

Tamagawa et al. disclose an electrostatic chuck comprising an electrode having first and second surfaces, a dielectric member having a first layer for covering at least the first surface of said electrode, power supply means for conducting electric power to said electrode, and cooling gas-feeding means for feeding a cooling gas onto the surface of said first layer of said dielectric member, wherein a plurality of fine projections are formed on the surface of said first layer of said dielectric member, said fine projections being shaped to have a tip and a root, the tip being smaller than the root to hold a wafer in substantially a point-contact manner, and the wafer held on the surface of the first layer of said dielectric member is cooled by the cooling gas fed from said cooling gas-feeding means. (See, Tamagawa et al., col. 22, lines 28-43.) Logan et al. disclose an electrostatic chuck comprising a dielectric base for supporting the hybrid chuck, the dielectric base having a top surface and a conductive layer covers at least a portion of the top surface of the dielectric base. The conductive layer is conductive for receiving a current that creates an electrostatic charge and is non-metallic for maintaining the electrostatic charge without significant eddy current losses in the presence of dynamic electromagnetic fields. A top working surface covers the conductive layer and is flat for holding workpieces upon the receiving of the current to create the electrostatic charge in the conductive layer. (See, Logan et al., col. 2, lines 2-15). The top working surface may be either a dielectric or a conductor and is a conductor with a greater conductivity than the dielectric base. In particular, the resistance of the top working surface is on the order of about

10^9 to 10^{11} Ohm·cm which allows a slow current leakage through the top working surface and greatly increases the holding power of the chuck through the Johnsen-Rahbek effect. (See, Logan et al., col. 3, lines 22-29).

The Office Action asserted that the combination of Tamagawa et al. and Logan et al. discloses, suggests or teaches all the features of claim 1. However, the Applicants respectfully submit that the teachings of Tamagawa et al. and/or Logan et al. fail to disclose, teach or suggest all the features recited by independent claim 1. Particularly, Applicants' respectfully submit that Tamagawa et al. and/or Logan et al. fail to at least disclose, teach or suggest a chuck which, among other things, comprises a dielectric member facing an object provided with a plurality of pins having a conductive layer on the surface in contact with the object, the conductive layer having a specific resistivity less than $10 \Omega\text{m}$, as recited in independent claim 1.

As Examiner concedes and Applicants submit, Tamagawa et al. provides no disclosure, teaching or suggestion regarding a chuck comprising, among other things, a plurality of pins having a conductive layer on the surface in contact with the object, the conductive layer having a specific resistivity less than $10 \Omega\text{m}$.

Applicants respectfully submit that Logan et al. do not overcome any of the deficiencies of Tamagawa et al. nor independently disclose, teach or suggest the features of claim 1. Rather, Logan et al. teach the same thing as Tamagawa et al. with respect to material of the layer on the surface in contact with the object. Logan et al. disclose a high resistivity material for the layer on the surface in contact with the object., in particular a material having resistivity on the order of about 10^9 to 10^{11} Ohm·cm or 10^7 to 10^9 Ohm·m. Like Tamagawa et al., Logan et al. teach selecting a material of the layer on the surface in contact with the object that greatly increases the holding power of the chuck through the Johnsen-Rahbek effect, in contrast to the teachings of Applicants' specification. The Office Action cites to a different low resistivity conductive layer 18 in Logan et al. that is disposed on the dielectric base but that is not in contact the object. Neither the teachings of Tamagawa et al. or of Logan et al. suggest putting a low resistivity layer in contact with the object and indeed specifically teach away therefrom as they seek to maximize the Johnsen-Rahbek force.

Therefore, for at least the above reasons, Tamagawa et al. and/or Logan et al. fail to disclose, teach or suggest all the features recited by claim 1. Claims 2-12 and 30-40 depend from claim 1 and are, therefore, patentable for at least the same reasons provided above related to claim 1 and for the additional features recited therein. As a result, Applicants

respectfully submit that the rejection under 35 U.S.C. §103(a) should be withdrawn and the claims allowed.

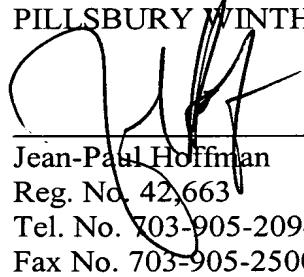
As noted above, Applicants respectfully submit that new dependent claims 30-40 are patentable over the cited prior art at least because that prior art fails to disclose, teach or suggest independent claim 1 from which each of those claims depend as well as fail to disclose, teach or suggest the additional features recited in each of the dependent claims.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. If questions relating to patentability remain, the Examiner is invited to contact the undersigned to discuss them.

Should any fees be due, please charge them to our deposit account no. 03-3975, under our order no. 081468/0305463. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced deposit account.

Respectfully submitted,

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